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REPORT TO THE CONGRESS

BY THE COMPTROLLER GENERAL
OF THE UNITED STATES



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Reduced Government Facsimile Communications Costs Possible Through Better Management

Department of Defense
General Services Administration

Civilian Government agencies and military departments have not managed facsimile communications equipment effectively. Established policies were disregarded; other policies and procedures which were not efficient or economical were instituted, and lease-versus-purchase analyses have not been made.

As a result, many of the more than 8,000 facsimile machines used by the Government at an annual cost of \$5.3 million were little used and could have been eliminated through sharing or common-use arrangements. Also, 96 percent of the machines were leased when substantial savings could have been achieved through purchasing.

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COMPTROLLER GENERAL OF THE UNITED STATES
WASHINGTON, D.C. 20548

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To the President of the Senate and the
Speaker of the House of Representatives

This report discusses the need for better management of Government facsimile communications equipment to reduce costs and to improve control of such equipment.

Our review was made pursuant to the Budget and Accounting Act, 1921 (31 U.S.C. 53), and the Accounting and Auditing Act of 1950 (31 U.S.C. 67). The review was made as part of our continuing overview of the Federal Government's telecommunications management.

Copies of the report are being sent to the Director, Office of Management and Budget; the Secretaries of Defense; Army; Navy; Air Force; Health, Education, and Welfare; Interior; Labor; Transportation; and Treasury; the Acting Secretary of Agriculture; the Attorney General; the Director, Office of Telecommunications Policy; the Director, United States Secret Service; the Administrator of General Services; the Administrator, National Aeronautics and Space Administration; the Executive Director, Federal Power Commission; the Commissioner, Internal Revenue Service; the Chairman, Securities and Exchange Commission; and the Acting Chairman, Federal Trade Commission.

R. J. Kellie
ACTING Comptroller General
of the United States

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ABBREVIATIONS

ARCCO Army Commercial Communications Office
AUTOVON Automatic Voice Network
DECCO Defense Commercial Communications Office
DOD Department of Defense
FPMR Federal Property Management Regulations
FTRC Federal Telecommunications Record Center
FTS Federal Telecommunications System
GSA General Services Administration
HEW Department of Health, Education, and Welfare
IRS Internal Revenue Service
OTP Office of Telecommunications Policy
TFO Telecommunications Project Office

COMPTROLLER GENERAL'S
REPORT TO THE CONGRESS

REDUCED GOVERNMENT FACSIMILE
COMMUNICATIONS COSTS POSSIBLE
THROUGH BETTER MANAGEMENT
Department of Defense
General Services Administration

D I G E S T

Facsimile machines are used to send or receive a copy of virtually any document over ordinary telephone lines. As of early fiscal year 1976, the Government was leasing more than 8,000 such machines at an annual cost exceeding \$5.3 million.

The Office of Telecommunications Policy is the primary focal point in the Federal Government for telecommunications policy and coordination.

The General Services Administration and the Department of Defense are responsible for establishing policies and procedures and for providing guidance to civil and military agencies, so that telecommunications equipment is purchased to meet actual needs and is efficiently used. (See ch. 1.) These policies and procedures were inadequate in some respects and those in force often were not adhered to.

As a result, too many facsimile machines were installed in Federal buildings and on military installations, and they experienced low use and unnecessarily high costs. (See ch. 2.)

For the General Services Administration and the military services to evaluate facsimile requests and plan procurements adequately as well as to make the best possible use of existing equipment, they must know where existing equipment is located, where new equipment is to be installed, and the capabilities and use of existing and new equipment. This necessary data was either not generally available or was not useful for decisionmaking, as shown by cases discussed on pages 3 through 8.

The Government has established telecommunications centers in Federal buildings and on

military installations to provide common-user communications services. Many civil agencies did not use the common-user facsimile services available to them and many telecommunications centers on military installations did not include facsimile services. (See pp. 8, 9, 13, and 14.)

The Government has established policies requiring agencies to consider the relative costs of lease-versus-purchase prior to acquisition. As of early fiscal year 1976, over 96 percent of the facsimile machines the Government used were leased; most agencies had not made the required cost analyses. In many instances purchasing would have been more economical than leasing. (See pp. 1 and 16.)

The Federal Property Management Regulations recommend that agencies consolidate their facsimile requirements for possible savings in procurement of the equipment. None of the military services or civil agencies with large volume requirements have done so. Therefore, possible savings through large volume procurements have not been realized. (See pp. 16 and 19.)

The General Accounting Office recommends that the Administrator of General Services and the Secretary of Defense:

- Identify all facsimile equipment owned or leased by executive agencies, determine usage, and use such data to evaluate the need for existing and additional facsimile equipment.
- Encourage strongly the use of common-user or shared facsimile equipment, if appropriate.
- Determine periodically which facsimile machines are more economical to purchase and insure that they are purchased rather than leased.
- Reemphasize the need for agencies to consolidate their facsimile procurement and, where the aggregate exceeds the

Federal Supply Schedule maximum order limitation, have the Federal Supply Service, Defense Commercial Communications Office, or the military services attempt to negotiate a better price with the supplier. (See p. 24.)

Further, the Secretary of Defense should:

- Instruct all Department of Defense components to lease facsimile equipment through the Defense Commercial Communications Office.
- Reevaluate the Joint Chiefs of Staff Memorandum of Policy Number 151, which requires the installation of automatic disconnect devices which are not always needed. (See p. 25.)

The Department of Defense, the General Services Administration, and the Office of Telecommunications Policy agreed in principle with these recommendations.

Facsimile use is expected to increase greatly over the next few years, in Government as well as in private enterprise. It is important that firmer controls be instituted as soon as possible. (See p. 2.)

CHAPTER 1

INTRODUCTION

Facsimile machines are communications equipment used to send or receive a copy of virtually any document over ordinary telephone lines. Most are about the size of a typewriter and have a transmission time of 3 to 6 minutes per 8-1/2 x 11 inch page. More sophisticated machines can transmit the same size page in 35 seconds. Properly used, facsimile communications can improve the efficiency and timeliness of Government operations.

The Office of Telecommunications Policy (OTP) is the primary focal point in the Federal Government for telecommunications policy and coordination. One of its assigned general functions is to identify competing, overlapping, duplicative, or inefficient telecommunications programs.

Government facsimile communications generally go over the General Services Administration's (GSA's) Federal Telecommunications System (FTS), ^{1/} the Department of Defense's (DOD's) Automatic Voice Network (AUTOVON), ^{1/} or commercial telephone lines. Some machines are connected by dedicated lines leased to the Government for exclusive facsimile use.

Under the authority of the Federal Property and Administrative Services Act of 1949, as amended (40 U.S.C. 471), GSA is responsible for procurement and management of telecommunications services ^{2/} for Federal civil agencies. GSA has issued regulations which require civil agencies to take certain actions when they need communications equipment or services.

In December 1950 DOD and GSA reached an agreement pursuant to Presidential letter of July 1, 1949, (14 F.R. 369 CFR). This agreement established areas of understanding about the authority and the responsibility for procuring and managing communications services within DOD. DOD later issued directives which established policy objectives for the guidance of all elements of DOD in the development and management of telecommunications programs, projects, and procedures. Each DOD element, in turn, issued

^{1/}FTS and AUTOVON are the common-user voice networks operated primarily for Federal civil agencies and military departments, respectively.

^{2/}Telecommunications services include facsimile.

implementing regulations for management of telecommunications services within their respective elements.

Since the first dial-up facsimile machines were introduced in the mid-1960s, their use has expanded widely throughout Government and industry. As of early fiscal year 1976, the Government was leasing over 8,000 machines at an annual cost exceeding \$5.3 million. About 300 machines had been purchased. Facsimile's growth rate is expected to rival the copier industry's explosive growth during the late 1960s. Communications trade journals project that the number of facsimile units in business and Government will quadruple by the early 1980s.

CHAPTER 2

REDUCED COSTS THROUGH BETTER MANAGEMENT OF FACSIMILE EQUIPMENT REQUIREMENTS AND UTILIZATION

The General Services Administration and the Department of Defense are responsible for establishing policies and procedures and for providing guidance to civil and military agencies, respectively, to insure that telecommunications equipment procurements, including facsimile machines, are justified and equipment is appropriately used. These policies and procedures were inadequate in some respects and those in force were often not adhered to. As a result, too many facsimile machines were installed with concomitant low utilization and increased costs.

DATA INADEQUATE TO DETERMINE REQUIREMENTS FOR FACSIMILE EQUIPMENT

For GSA and the military services to adequately evaluate requests for facsimile equipment and optimize use of existing equipment, they must know where existing equipment is located, where new equipment is to be installed, and the capabilities and use of existing and new equipment. As a rule this data was either not available or was not retained in a manner which would insure its use.

Agencies responsible to GSA

To insure efficient and economical procurement of telecommunications facilities, the Federal Property Management Regulations (FPMP), section 101-35.201-2, require most executive agencies to submit a written request for approval to GSA Headquarters before ordering facsimile equipment. Frequently, civil agencies subject to the FPMR did not request approval from GSA before they installed facsimile equipment. For example:

- Seven of 13 facsimile users in the San Francisco Federal Building who were subject to the FPMR requirement had not obtained GSA approval. Four of these seven were unaware of the requirement.
- GSA's Federal Supply Service, in San Francisco, installed a seven-machine system without receiving approval.
- Before obtaining GSA approval the Internal Revenue Service (IRS) installed 210 machines throughout the United States to be used by the Cost of Living Council.

Even when agencies did request approval, GSA Headquarters did not have an inventory of facsimile equipment already in the Government, except for equipment installed in its own common-user centers, and did not maintain records of previous requests in a manner to aid in the approval or disapproval decision. Records of previous requests were maintained in a manner making it very difficult to locate and identify them and were sent to storage after 2 years. GSA Headquarters personnel told us that, generally, they did not use these records in making the approval or disapproval decision. We found that generally, disapprovals were issued only when the requested machine was to be used in a building having a common-user center with facsimile capability.

GSA's FPMR 101-35.310 requires each facsimile user to report quarterly the amount of time they used the Federal telecommunications system to transmit messages. We were told the collected data is to be used for FTS fund allocation and for planning FTS circuit requirements.

However, according to a GSA official, many agencies consolidate individual usage reports and submit agency totals. This practice precludes GSA from using the submissions to identify low-use facsimile machines. Further, many users were not submitting usage data. In San Francisco, for example:

--At the Federal Building, 4 of the 13 facsimile users contacted were not aware of the reporting requirement.

--At the Federal Office Building, three of the eight Department of Health, Education, and Welfare (HEW) users were not aware of the reporting requirement.

--At GSA region IX headquarters, Tishman Building, usage data was not being reported on three of GSA's non-Federal Telecommunications Record Center (FTRC) facsimile machines.

--Usage data was not being reported for the Coast Guard machine and four Forest Service machines at 630 Sansome Street.

--No usage data was being reported for the two machines used by the Federal Power Commission and the Agriculture Office of Investigation at 555 Battery Street.

If reliable use data was available to GSA it could also be used to evaluate (1) the need for existing low-use equipment and (2) agencies requests for additional or upgraded machines. For example, the following table shows 1 week's use 1/ of 46 facsimile machines located in 5 San Francisco buildings. 2/ As can be seen, almost half of the machines averaged two or fewer messages sent or received per day.

<u>Average messages per day sent or received</u>	<u>Number of machines</u>	<u>Percent of total machines</u>
0.0 through 1.0	13	28
1.1 through 2.0	9	20
2.1 through 3.0	5	11
3.1 through 4.0	10	22
4.1 through 5.0	3	6
over 5.0	<u>6</u>	<u>13</u>
Total	<u>46</u>	<u>100</u>

Military services

The Army and the Air Force have inventoried their facsimile equipment and have established offices responsible for reviewing and approving facsimile equipment requests. Neither of these offices receives usage data on installed facsimile equipment.

The Navy has not inventoried its equipment, has not established a control office for reviewing and approving installation of new facsimile machines, nor is it receiving usage data on installed facsimile equipment.

Army

On July 1, 1973, the Army Commercial Communications Office (ARCCO) under the U.S. Army Communications Command (formerly U.S. Army Strategic Communications Command) was

1/All usage data in this report is based on 1-week samples. It was obtained from usage logs we provided to and were completed by facsimile users.

2/Federal Building, 450 Golden Gate Avenue (17 machines); Federal Office Building, 50 Fulton Street (8 machines); Tishman Building, 525 Market Street (13 machines); 630 Sansome Street (6 machines); and 555 Battery Street (2 machines).

established to centrally manage Army-leased communications, including facsimile. ARCCO is responsible for both evaluating all requests for leased facsimile equipment and for annually reviewing existing installations to insure facsimile is the most operationally satisfactory and economically feasible alternative.

To aid them in their evaluations, each Army command is required to annually provide ARCCO with descriptive and location data on their facsimile equipment. According to ARCCO officials, most Army facsimile machines had been identified and ARCCO was instrumental in getting 90 unjustified facsimile machines removed. In addition, ARCCO officials told us they were able to halt installations of other unjustified facsimile equipment.

Army facsimile users are required to maintain traffic logs. These logs, however, are not forwarded to ARCCO, and therefore, cannot be used for evaluating requirements for existing equipment on a centralized basis. As shown below, most of the facsimile machines at the Presidio of San Francisco, Fort Baker, and Oakland Army Base had low use 1/

<u>Average messages per day sent or received</u>	<u>Number of machines</u>	<u>Percent of total machines</u>
0.0 through 1.0	2	13
1.1 through 2.0	3	20
2.1 through 3.0	6	40
3.1 through 4.0	1	7
4.1 through 5.0	0	0
over 5.0	<u>3</u>	<u>20</u>
Total	<u>15</u>	<u>100</u>

Air Force

Air Force Manual 100-22 requires that facsimile equipment requirements be validated by the Communications, Electronics and Meteorological Board and authenticated by the installation commander. Such requirements are then forwarded to major command level where they must be fully

1/One-week usage samples taken during August 1975.

justified and validated. Requirements originating at major command level miss the installation approval stage. Finally, all requirements are forwarded to Air Force Headquarters for review and approval.

The Telecommunications Project Office (TPO) was established at Air Force Communications Service Headquarters to assist potential facsimile users to determine which facsimile system would best meet the user's needs. According to a TPO official, TPO functions as a technical advisor, not a reviewer of need. Requests are not required to be processed through TPO; TPO serves in an advisory rather than control capacity.

Air Force Communications Service Headquarters, in January 1975, requested all Air Force installations to provide it with an inventory of their facsimile equipment. In this way most of the Air Force facsimile machines were identified, and a master listing was prepared. Air Force Headquarters and subordinate commands can use this listing when reviewing facsimile equipment requests.

Air Force Manual 100-22, par. 6-15, also requires facsimile users to maintain a usage log. The log is kept on file for 30 days following the last day of each month and then destroyed. No usage data is forwarded to command or headquarters levels; consequently, machines with low utilization cannot be identified. For example, the following usage information ^{1/} on facsimile equipment we reviewed at Travis AFB would not be available at command or headquarters levels.

<u>Average messages per day sent or received</u>	<u>Number of machines</u>	<u>Percent of total machines</u>
0.0 through 1.0	2	40
1.1 through 2.0	1	20
2.1 through 3.0	<u>2</u>	<u>40</u>
Total	<u>5</u>	<u>100</u>
<u>Navy</u>		

The Navy considers facsimile machines to be office rather than communications equipment, and no central office

^{1/}A 1-week sample was taken during the month of September 1975.

with communications management responsibilities has been given control or review responsibility over facsimile procurement. Each command's headquarters reviews the need and approves installation of the equipment.

Navy officials said that, except for those using FTS, there was no Navy requirement for facsimile users to maintain usage logs or records. Consequently, low-use machines, such as those at Naval Station, Treasure Island, and Naval Air Station, Alameda, shown below, 1/ probably would not be identified.

<u>Average messages per day sent or received</u>	<u>Number of machines</u>	<u>Percent of total machines</u>
0.0 through 1.0	7	54
1.1 through 2.0	4	30
2.1 through 3.0	0	0
3.1 through 4.0	1	8
4.1 through 5.0	0	0
over 5.0	<u>1</u>	<u>8</u>
Total	<u>13</u>	<u>100</u>

REDUCED COSTS THROUGH USING SHARED OR COMMON-USER FACSIMILE EQUIPMENT

One way to reduce the number of facsimile machines is to share equipment or to use common-user equipment, such as in communications centers.

GSA

GSA has established FTRCs in many Federal office buildings or commercial buildings housing Federal activities. These centers provide common-user communications, including facsimile, support to nearby Federal activities. GSA's policy is to disapprove agency requests for procurement and/or installation of facsimile equipment that is to be installed in a building having an FTRC, unless the agency certifies an operational requirement which overrides cost considerations.

Two buildings in San Francisco have FTRCs. Both buildings also house agencies with non-FTRC facsimile machines.

1/Usage data is based upon 1-week samples taken during August and September 1975.

<u>Location</u>	<u>Number of non-FTRC facsimile machines</u>
Federal Building, 450 Golden Gate Avenue	16
Tishman Building, 525 Market Street	<u>9</u>
Total	<u>25</u>

Daily use on these machines for a 1-week period ranged from 0 to 10.4 messages. Average daily use was 3.1 messages or 34.1 minutes. Most machines were separated by a single floor. In many cases two or more machines were on the same floor. Further, many agencies had sole use of more than one machine, even though only a few messages were being processed. For example:

- IRS had two machines on the same floor at the Federal Building, 450 Golden Gate Avenue. One averaged only 2.4 messages a day while the other averaged 0.8. ^{1/}
- Department of Labor had two machines located a floor apart in the Federal Building. One handled a daily average of 2.6 messages while the other averaged only 0.8.
- IRS had four low-speed machines and one high-speed digital machine on the 26th floor of the Tishman Building. The average daily usage on the five machines was 3.8 messages and 25.7 minutes each.
- GSA itself had four non-FTRC machines located within three floors of the FTRC located on the 30th floor of the Tishman Building. All four had low use as shown below.

<u>Machine location</u>	<u>Average daily use</u>	
	<u>Messages</u>	<u>Minutes</u>
Public Building Service, 31st Floor	3.6	44.0
Federal Supply Service, 33rd Floor	6.0	43.6
Federal Supply Service, 33rd Floor	0	0
Automated Data and Telecommunica- tions Service, 29th Floor	3.2	50.4

^{1/}IRS told us that one of these machines has now been eliminated.

Many factors contributed to the multiplicity of facsimile machines in these two buildings.

--IRS received approval to install an expensive digital facsimile machine in a non-FTRC building. It was later moved to a building having an FTRC. According to a GSA official responsible for processing facsimile requests, there is no requirement that GSA be notified of such a change; consequently, GSA did not reevaluate the need for the machine.

--Many machines were installed without prior approval from GSA, even though Federal Property Management Regulations require most agencies to submit written requests for such approval. Of the 25 machines in these 2 buildings, 9 were leased by agencies subject to the FPMR and were installed with the approval of GSA. Three machines were leased by entities not subject to the FPMR. Thus, 13 of the 25 machines were owned by agencies subject to the FPMR and were installed without prior approval from GSA as shown below.

<u>Agency</u>	<u>Facsimile machines</u>
Internal Revenue Service	5
Federal Supply Service	2
Department of Labor	2
Small Business Administration	1
Securities and Exchange Commission	1
Federal Trade Commission	1
Secret Service	<u>1</u>
Total	<u>13</u>

Even where GSA has specifically recommended that an FTRC be used, its recommendations have not always been followed. For example, in July 1975 GSA asked IRS to remove a high-speed facsimile machine, costing \$6,897 annually, from the Atlanta IRS regional office because the FTRC in that building had an identical machine with sufficient capacity to handle IRS requirements at less than half the cost to the Government. As of November 1975, IRS had not removed the machine nor justified its retention.

We questioned 8 of the 25 facsimile users in buildings visited having an FTRC, and 3 agencies' officials at the national headquarters level, to determine if a common-user machine, such as at an FTRC, would satisfy their needs, and if not, why. Their reasons for not being able to use a common-user machine and our analysis of each follow.

1. Transmission could involve sensitive matters. We were advised that most of the sensitive data referred to involved transmissions with a classification "for 'x' agency eyes only," not national security information, 1/ personal information, or information otherwise sensitive according to any nationally recognized criteria. We do not believe such sensitive data should be prohibited to communications center personnel who are entrusted with classified national security information.

Further, the Communications Act of 1934, as amended, prohibits disclosure, or assisting in disclosure, of any information included in interstate or foreign communications. The law provides severe penalties for unauthorized disclosure of such information. Most of the messages logged during our 1-week observation period were interstate communications. The Act provides penalties for unauthorized disclosure of 1 year in prison, or a fine of \$10,000, or both. We believe the Communications Act's penalties provide substantial incentive to restrict unauthorized disclosure by communications personnel.

Where an agency has determined that the information is of such sensitive nature that it cannot be transmitted over a shared or common-user system without violating existing laws or directives, such as the Privacy Act of 1974, alternatives should be considered. In view of the small number of transmissions encountered in our review and the savings possible through use of a shared or common-user terminal, the transmission of those sensitive messages via mail on an exception basis or (where multiple terminals are employed at a location) a single

1/Transmission of classified national security information can only be made in encrypted form over approved circuits (National Security Council Directive, May 17, 1972, appendix A, paragraph F, 50 U.S.C. §401 note (Supp. IV 1974)). Therefore, we do not consider it relevant to the sensitive information discussed herein.

terminal dedicated for the purpose may be effective and economical. 1/

2. FTRCs' \$1.50-per-page charge is too high. We believe this complaint is not well founded. If the users of the 25 machines in 2 Federal buildings (see p. 9) computed their costs, they would find that it cost them, based on the average use of 34.1 minutes per machine per day, about \$1.73 per page, as shown below.

Average machine cost per page	a/ \$0.35
Average FTS cost per page	b/ 0.90
Average personnel cost per page	c/ <u>0.48</u>
Total average cost per page	<u>\$1.73</u>

a/ Average lease per month (\$43.65) divided by 22 work days per month, divided by average time used per day (34.1 minutes) times average machine transmission time (6 minutes) is \$0.35.

b/ Average FTS cost per minute (\$0.15) times average machine transmission time (6 minutes) is \$0.90.

c/ Average personnel cost (\$10,000 per year, \$5 per hour or \$0.08 per minute) times average machine transmission time (6 minutes) is \$0.48.

Thus, the FTRCs are offering service at comparable cost to that now being incurred by sole users. However, if the FTRC machines were used more, the cost per page would decrease since costs would be spread over a higher volume of pages.

3. FTRCs' are not open at night. As most facsimile equipment used by the Government is lightweight and portable, agencies may borrow a facsimile machine from the FTRC for occasional night use. GSA officials stated that this practice is now being followed.

1/The security of such a terminal could be further enhanced through use of encryption. However, the National Bureau of Standards recommends that other security safeguards be implemented before sophisticated and costly encryption devices are employed for the protection of personal data. (Federal Information Processing Standards Publication 41, May 30, 1975.)

4. An IRS facsimile user said his headquarters was not receptive to his using an FTRC instead of his IRS machine, but that he thought the FTRC or the other IRS machine in the building could satisfy his facsimile needs. Headquarters officials said that they did not advocate using FTRCs for any communications, including facsimile, because their experience with GSA's Advanced Records System 1/ had convinced them FTRC service was poor. We contacted two major FTRC customers, the Employment and Training Administration, Department of Labor, and the Office of Minority Business Enterprise, Department of Commerce. Both were satisfied with the quality and timeliness of the FTRC facsimile service.

Agencies in buildings without FTRCs can also designate a machine in a central location to be used on a shared basis and eliminate machines with low use. Both the Department of Health, Education, and Welfare and Forest Service regional offices in San Francisco have designated machines to be used on a shared basis. Although neither agency has yet removed any low-use machines, the potential for reduction exists. For example, at HEW five nonshared machines averaged less than two messages per day while the shared machine averaged slightly over one message per day. At the Department of Agriculture, two machines established for shared use transmitted or received a total of three messages during the sample week. Two other Agriculture machines had low use making consolidation possible.

Military services

Most large military installations have a telecommunications center which provides communications support to host and tenant activities, thereby eliminating the need for everyone to have their own communications capabilities. At the installations visited, however, most facsimile users had their own facsimile equipment, and most telecommunications centers did not have facsimile capability.

1/A common-usage record communications system.

<u>Location</u>	<u>Facsimile equipment</u>	
	<u>In the telecommunication center</u>	<u>Not in the telecommunications center</u>
Presidio of San Francisco (note a)	1	7
Oakland Army Base	1	6
Travis Air Force Base (note b)	0	5
Naval Air Station, Alameda	0	9
Naval Station, Treasure Island	<u>0</u>	<u>4</u>
Total	<u>2</u>	<u>31</u>

a/Includes two machines at Fort Scott, which is part of the Presidio proper, and two machines at Fort Baker, which is located near the Presidio and receives communications support from the Presidio.

b/Does not include four machines used for on-base supply support and three machines used by the base weather station.

Army Regulation 105-1 requires that nontactical facsimile equipment be located in the installation's telecommunications center. Army's policy is that approval for operating a dedicated device on the Automatic Voice Network and/or other voice circuits requires the user to certify that mission requirements preclude using common-user terminals.

Most Army facsimile machines were not in telecommunications centers. An ARCCO official said the facsimile users with dedicated machines had certified operational requirements. The stated operational requirements and our analysis follow.

1. They are transmitting sensitive material. In discussions with military facsimile users (see below), we were told that sensitive material was data that was annotated "for 'x' agency eyes only" because x agency did not want another agency to see it--although the data was neither classified, personal, nor otherwise truly sensitive. See pages 11 and 12 for similar comments by civil agency users and our analysis which we believe is equally applicable to military agencies.
2. The telecommunications centers are too far away. Most military installations have mail and/or

courier services which transport messages to and from telecommunications centers. These services can also be used for facsimile messages.

Neither the Air Force nor the Navy has issued service-wide policies advocating common-user facsimile equipment.

We discussed the common-user concept with 12 of the military facsimile users included in our usage study. Ten said they could use a common-user facsimile machine if one was available. Those who said they could not use a common-user machine also said transmissions could involve sensitive matters.

CHAPTER 3

LOWER COSTS FOR FACSIMILE EQUIPMENT

THROUGH ALTERNATIVE PROCUREMENT METHODS

The Government could meet its needs for facsimile equipment more economically by applying established procurement policies in acquiring the equipment. We found that

- most facsimile machines are leased, whereas purchasing the equipment would be less costly;
- insufficient consideration was given to consolidating requirements to obtain savings in leasing or buying equipment; and
- the Department of Defense requirement that facsimile machines include automatic disconnect devices causes acquisition of unneeded equipment.

LEASE-VERSUS-PURCHASE

Over 96 percent of the facsimile machines used by the Government, as of early fiscal year 1976, were leased, and estimated lease payments for fiscal year 1976 exceeded \$5.3 million. Little or no consideration was given to purchasing the equipment even though frequently it would have been more economical.

Procurement of equipment

Subpart 101-25.5 of the Federal Property Management Regulations states that in many cases savings can be realized through equipment purchase rather than lease and requires agencies to consider the relative lease-versus-purchase costs before procurement. The regulations state that, before procuring equipment, agencies should consider (1) length and extent of equipment usage, (2) financial and other advantages of all available equipment types and makes, (3) lease costs and purchase options, (4) purchase and installation costs, (5) imminent technological improvements, and (6) other pertinent factors.

FPMR also require that agencies study existing leases to determine the feasibility of purchasing equipment, giving consideration to any applicable purchase options. FPMR recommend purchasing equipment if it can be used past the point when purchasing becomes more economical than leasing. They also require any executive agency procuring equipment

to retain copies of cost comparisons and any other pertinent data used to support the equipment lease or purchase decision.

Armed Services Procurement Regulation 1-317 also gives guidelines to be used when deciding whether to lease or purchase equipment. The regulation recommends purchasing where:

--The Government has a long-term requirement and purchasing would be more economical than leasing (generally, long-term leases should be avoided in the absence of compelling circumstances).

--It is not probable the equipment will become obsolete and require replacement within a short period.

Many facsimile users told us the decision to obtain facsimile equipment was made at a higher organizational level than theirs, such as agency, service, bureau, or command headquarters; consequently, they did not participate in determining the procurement method. We asked headquarters officials at four civil agencies having many facsimile machines as well as Army, Navy, and Air Force officials to provide us with copies of their lease-versus-purchase studies made before procuring their equipment. The officials told us that their agency or service had not made any formal studies. The primary reasons given for not purchasing equipment were (1) fear of technological obsolescence and (2) funds were available for leasing but not purchasing.

Facsimile machines have a generally accepted useful life of at least 5 to 8 years. Some machines with few moving parts can be expected to last much longer. Although there have been technological improvements in facsimile equipment, communication trade journals point out that older equipment models have not been rendered obsolete by these improvements and still dominate the market today. Most of the facsimile machines used by the Government are relatively unsophisticated, low-volume machines which we believe are less susceptible to technological obsolescence than the high-speed, multiple feature machines designed for high-volume use, such as in a common-user situation.

Most facsimile machines used by the Government lease for less than \$50 a month. As it is easier to justify and obtain \$50 a month than a lump sum of \$1,500 to \$2,000, many users would choose to lease rather than purchase their machines. However, as shown below, in the long run the purchase option is frequently more economical.

To help potential equipment users make the lease or purchase decision, the FPRM illustrates a simplified method for determining the break-even point (that point where purchasing becomes more economical than leasing). This method is a straight comparison of costs, with the present value of money not considered.

As of September 1975, the most popular machine used by the Government accounted for approximately 4850, or 61 percent, of all Government leased facsimile machines. Had all Government users of this particular model purchased their machines rather than leased them, net savings during the first 5 years would have ranged from \$2.4 million for leases with annual payments to \$3.1 million ^{1/} for leases with monthly payments, with an additional recurring annual savings of about \$2 million over the remaining useful life of the equipment. The manufacturer assigns this model a useful life of 8 years but maintains that this is only an estimate and that the machine could last considerably longer.

Two other machines used by the Government had more attractive purchase than lease prices. As of November 1975, the Government was using about 125 of these 2 models, 58 being leased. If these 58 machines had been purchased rather than leased, net savings during the first 5 years would have been over \$880,000 ^{1/} (only annual leases apply) with additional annual recurring savings of \$337,000 over the remaining useful life of the equipment.

Unlike the FPMR method of calculating lease-versus-purchase break-even points and savings, we advocate using the present value of money in the calculations. Using present values delays the break-even point and yields reduced, but still substantial, potential savings. Five-year savings for the 4,850 machines of the most popular model leased by the Government would range between \$675,000 and \$1.2 million depending on whether annual or monthly leases are used. Five-year savings for the other 58 leased machines discussed above would be about \$585,000.

REQUIREMENTS CONSOLIDATION

The FPMR (101-26.106) states:

"Full consideration shall be given to the consolidation of individual small volume requirements

^{1/}The cost of annual maintenance contracts has been included in calculating projected savings.

to enable the Government to benefit from lower prices normally obtainable through definite quantity contracts for larger volume procurements."

The military services and civil agencies have not consolidated their facsimile requirements for possible savings in leasing or buying the equipment.

General Services Administration's Federal Supply Service annually negotiates catalog prices for procurements falling within maximum order limitations. The amount of the limitation represents the Service's best estimate as to the volume above which suppliers will likely quote lower prices per unit due to the large quantity procured. The purpose of this limitation is to encourage Government agencies to explore the possibilities of securing lower prices by consolidating their requirements.

Agencies with a total annual requirement exceeding the maximum order limitation should attempt or request the Service to attempt to negotiate better per-unit prices with the suppliers. The Service may be in a better negotiating position than user agencies because they have access to the suppliers' sales records and discount practices, which allows them to determine if the Government is paying a higher unit price than other customers ordering comparable quantities.

The following are examples of Government organizations with anticipated fiscal year 1976 facsimile lease payments to a single supplier, which exceed the \$100,000 maximum order limitation established for Federal Supply Schedule facsimile contracts.

<u>Organization</u>	<u>Number of machines (note a)</u>	<u>Annual lease payments (note b)</u>	<u>Number of suppliers receiving over \$100,000 annually</u>
Department of Defense (note c)	2,787	\$1,868,209	3
National Aeronautics and Space Administration	116	290,780	1
Internal Revenue Service	156	245,230	2

Department of Agriculture	345	201,406	1
Department of Health, Education, and Welfare	279	186,196	1
Department of Interior	215	138,054	1
Federal Bureau of Investigation	234	122,569	1

a/Includes data from four of the five major Government facsimile equipment suppliers.

b/These figures do not include prices for ancillary equipment, such as modems and supplies.

c/Breaking these figures down showed Navy with 1,407 machines (\$876,121), Army 827 machines (\$550,677), and Air Force 320 machines (\$260,628). Other DOD organizations, and machines which could not be indentified to specific services, accounted for an additional 233 machines (\$180,783).

None of the above organizations attempted to negotiate reduced prices.

The Defense Commercial Communications Office (DECCO) was established as DOD's centralized communication leasing office and is responsible for procuring, accounting, and paying for services leased for all DOD organizations. As of early fiscal year 1976, a DECCO official told us they were leasing less than 30 percent of DOD's facsimile machines. The remainder were leased directly by the DOD users.

In the latter part of fiscal year 1975, DECCO was handling consolidated facsimile lease requirements from one supplier worth about \$250,000 annually (primarily Army equipment). On the basis of this requirement, we were told DECCO attempted to obtain a better price than available through the Federal Supply Schedules. They were not successful. If all DOD activities had used DECCO as their leasing agent for facsimile equipment, the total annual requirement from this one supplier would have been in excess of \$1.25 million. With this increased volume, DECCO's bargaining position would have been stronger.

USE OF TELEPHONE DISCONNECT DEVICES

The Joint Chiefs of Staff's Memorandum of Policy Number 151 requires that:

"Devices and/or terminal equipment used to transmit or receive nonsecure record data or graphics over the AUTOVON will be equipped with an automatic disconnect feature which will free the circuit after the device is inactive for a period of 1 minute."

The policy prevents Automatic Voice Network circuits from being unnecessarily tied up after the facsimile transmission is completed. We believe this policy has required facsimile users to obtain unnecessary equipment.

Information obtained from the military facsimile users indicated most facsimile equipment used required operator attention; consequently, they were located in areas which are permanently staffed. Where this situation prevailed, there was no need for the automatic disconnect feature. We collected data on 33 military facsimile machines; of these, only 7 had automatic disconnect features and 1 of these had been disconnected. The users who did not have the feature said they did not believe they needed it because there was always someone to attend the machine.

In an effort to get the policy changed, the Army Communications Command sent a message, in April 1975, to Department of the Army Headquarters which stated:

"* * * If the aforementioned policy was solely applicable to facsimile devices which operate either automatically or semiautomatically * * * the objective of ensuring minimum degradation to the AUTOVON due to inactive devices tying up a trunk would be obtainable. However, a survey of facsimile users by the USACC-CONUS Telecommunications Certification Office (TCO) to determine if the automatic disconnect feature was being used resulted in the determination that the feature was not being used (even though it was being leased) with facsimile devices which are totally operator attended for both the transmit and receipt mode * * *. Operators find use of the automatic disconnect feature to be cumbersome and time-consuming. Consequently, it is deactivated."

A decision on this request had not been made at the time of our review.

The Army Communications Command believes the Army could save about \$69,600 annually by removing the requirement for automatic disconnect devices for facsimile equipment requiring full-time operator assistance. Additional moneys could be saved by the other services.

CHAPTER 4

AGENCY COMMENTS AND OUR EVALUATION

We discussed our findings with and requested comments on our proposed report from the Department of Defense, the General Services Administration, and the Office of Telecommunications Policy. Because they are the primary agencies having responsibility for facsimile management, their comments are included in full in appendixes I, II, and III, respectively.

Comments were also received from the Departments of Agriculture, Justice, and Treasury; the National Aeronautics and Space Administration; the Federal Power Commission; and the Securities and Exchange Commission. Because of their volume, these comments were not included in this report. The comments were generally in agreement with our conclusions and recommendations.

Agency comments at variance with facts or statements contained in our proposed report were reviewed and, where appropriate, revisions made in this final report.

The Deputy Director, Telecommunications and Command and Control Systems, said that DOD fully concurred with our conclusions and recommendations, and they were addressing the problem areas contained in our report on what DOD believed to be a positive action basis. (See app. I.)

The Deputy Administrator, GSA, said that GSA agreed in general with our report content and recommendations. Ongoing GSA activities, he added, would aid in effective implementation of most of our recommendations. (See app. II.)

The Director, OTP, said that our report correctly emphasizes the need to capitalize on the savings which might accrue to the Government through increased facsimile sharing, requirements consolidation, and consideration of a different procurement management strategy. He added that the recommendations in our report were compatible with OTP's objectives. (See app. III.)

CHAPTER 5

CONCLUSIONS AND RECOMMENDATIONS

CONCLUSIONS

The General Services Administration and the Department of Defense are responsible for establishing policies, methods, and procedures and for providing guidance to insure that telecommunications equipment procurements, including facsimile machines, are justified and equipment appropriately used. These policies, methods, and procedures were inadequate in some respects and those in force were often not adhered to. As a result, too many facsimile machines were installed, with concomitant low utilization and increased costs.

As described in chapter 2, many facsimile machines had low use. While this does not necessarily indicate the absence of valid communications requirements, it does indicate that the method of filling the requirement deserves reevaluation. Greater emphasis should be put on common-user or shared equipment, particularly where several low-use machines are located in the same building.

Government agencies have not effectively managed facsimile equipment procurement. Established procurement policies were disregarded and other policies and procedures, which were not efficient or economical, were instituted. Lease-versus-purchase analyses have not been made and, as a result, the Government has incurred unnecessary costs.

It would not be economical for each executive agency and subordinate command to perform a lease-versus-purchase cost analysis for each individual facsimile procurement. It would, however, be economical to make such analyses periodically at GSA and DOD headquarters level when prices change and use them for all later procurements.

Facsimile use is expected to greatly increase over the next few years; therefore, controls must be instituted as soon as possible.

RECOMMENDATIONS

We recommend that the Administrator of General Services and the Secretary of Defense:

- Identify all facsimile equipment owned or leased by executive agencies, determine usage, and use such data to evaluate the need for existing and additional facsimile equipment.
- Encourage strongly the use of common-user or shared facsimile equipment, if appropriate.
- Determine periodically which facsimile machines are more economical to purchase and insure that they are purchased rather than leased.
- Reemphasize the need for agencies to consolidate their facsimile procurements and, where the aggregate exceeds the Federal Supply Schedule maximum order limitation, have the Federal Supply Service, Defense Commercial Communications Office, or the military services attempt to negotiate a better price with the supplier.

We further recommend that the Secretary of Defense:

- Instruct all DOD components to lease facsimile equipment through DECCO.
- Reevaluate the Joint Chiefs of Staff Memorandum of Policy Number 151, which requires the installation of automatic disconnect devices which are not always needed.

CHAPTER 6

SCOPE OF REVIEW

We made our review at the Office of Telecommunications Policy, Washington, D.C.; Office of the Director, Telecommunications and Command and Control Systems, Washington, D.C.; the headquarters of the General Services Administration, Department of Health, Education, and Welfare, Department of Agriculture, Department of the Interior, and Internal Revenue Service, Washington, D.C.; Air Force Communications Service, Richards-Gebaur Air Force Base, Missouri; Army Communications Command, Fort Huachuca, Arizona; Naval Telecommunications Command, Washington, D.C.; Defense Commercial Communications Office, Scott Air Force Base, Illinois; the regional headquarters of the General Services Administration, Department of Health, Education, and Welfare's Forest Service, and Internal Revenue Service in San Francisco, California; and 22 subordinate civil agency offices and military installations in northern California.

At these locations we obtained data, examined records, and interviewed communications officials and facsimile users regarding facsimile equipment justification, procurement, and utilization. We excluded special purpose facsimile machines, such as those used for weather forecasting.



OFFICE OF THE SECRETARY OF DEFENSE
DIRECTOR, TELECOMMUNICATIONS AND
COMMAND AND CONTROL SYSTEMS
WASHINGTON, D.C. 20301

29 JUN 1976

Mr. Fred J. Shafer
Director, Logistics and
Communications Division
General Accounting Office
Washington, D.C. 20548

Dear Mr. Shafer:

This is in response to your draft report dated April 28, 1976 to the Secretary of Defense on "Improvement Needed in Government Facsimile Equipment Management," Code 941077 (OSD Case #4347). The recommendations and comments contained in the report recognize problem areas which the Department is addressing on what we believe to be a positive basis. Our detailed comments to the report's statements and recommendations as well as planned remedial actions are provided below.

Recommendation: Identify all facsimile equipment owned or leased by executive agencies, determine usage, and use such data to evaluate the need for existing and new facsimile equipment.

The Department fully concurs. Since preliminary discussions with your representatives on their initial findings, the Services have taken action to identify all facsimile equipment. Additionally, usage data on all such equipment is now required. All activities will use this data in the cost effective management of current equipment and in determining requirements for the acquisition of new equipment.

Recommendation: Strongly encourage using common-user or shared facsimile equipment, if otherwise appropriate.

Fully concur. The Department agrees that shared or common-user facsimile equipment must be maximized and that centralized operations must be the rule rather than the exception. However, we must ensure that this approach does not encourage the transmission of information via facsimile which could be more effectively accommodated through other record communications systems or correspondence distribution systems.

Recommendation: Periodically determine which facsimile machines are more economical to purchase and ensure that these machines are purchased rather than leased.

Fully concur. The Department strongly supports the practice of periodically making an analysis to determine the most cost effective approach for acquisition of these devices. The Navy, as an example, has incorporated excerpts from your report in a proposed directive to all Naval activities citing the various lease versus purchase analyses contained in Appendix I.

Recommendation: Re-emphasize the need for agencies to consolidate their facsimile procurements and, where the aggregate exceeds the Federal Supply Schedule maximum order limitation, have the Federal Supply Service, Defense Commercial Communications Office (DECCO), or the military services attempt to negotiate a better price with the supplier. Further, OSD should instruct all DoD components to lease facsimile equipment through DECCO.

The Department concurs with the concept of consolidated facsimile procurement where economically advantageous and practical from a management standpoint. Presently, the Army and Air Force have assigned contractual responsibility for leasing of facsimile devices to DECCO. The Navy presently does not manage facsimile equipment as a telecommunications resource but as office equipment. Consequently, the Navy believes centralized leased management through DECCO would not be cost beneficial to the Navy from a management standpoint, even assuming that DECCO could lease for less cost under centralized leasing arrangements. This issue will be the subject of close examination with the Navy during the next few months. A determination as to whether the Navy should centrally manage facsimile equipment as a telecommunications resource will be made upon the conclusion of this examination.

Recommendation: Re-evaluate the Joint Chiefs of Staff Memorandum of Policy Number 151, which requires the installation of automatic disconnect devices where facsimile machines are not capable of automatic send and receive and are monitored during use.

The aforementioned Memorandum of Policy is under review at this time and, among other things, consideration is being given to restricting the requirements for automatic disconnect devices to those facsimile devices capable of automatic or semi-attended operation through AUTOVON facilities. In those instances where the device is under the control of an operator, there should not be a requirement for an automatic disconnect device. The proposed revision will provide responsible officials the appropriate latitude to make sound management decisions on the merits of each specific case.

APPENDIX I

APPENDIX I

Finally, the Department recognizes the need to improve our overall management of customer operated facsimile. All three Services are in the process of reviewing the entire scope of facsimile operations and are preparing revised instructions to subordinate commands and activities. I appreciate the review and concur fully with the conclusions and recommendations of the draft report. As previously indicated, we are addressing these areas on what we believe to be a positive action basis.

Sincerely,

John P. Stenslet
Principal Deputy

UNITED STATES OF AMERICA
 GENERAL SERVICES ADMINISTRATION
 WASHINGTON, DC 20405



June 25, 1976

Honorable Eimer B. Staats
 Comptroller General of the United States
 General Accounting Office
 Washington, DC 20548

Dear Mr. Staats:

We have reviewed your draft report entitled "Improvement Needed in Government Facsimile Equipment Management," April 1976, and generally agree with the report content and the recommendations.

Several of our on-going activities, namely, the Communications Management Information System, a revitalization of the Federal Telecommunications Records Center program, and development of a Directory of Facsimile Equipment in the Federal Government, will aid in effective implementation of most of the recommendations.

Also, following are editorial comments that require some clarification:

1. GAO's proposed method for determining present value, shown in Appendices III and IV, is different from the guidelines which Federal agencies follow as set forth by OMB Circular A-94. Agencies use a 10% discount rate and mid-year discount factors rather than 7.8353125 as GAO suggests. [See GAO note below.]
2. The FPMR reference on page 21 should read 101-26.106.

If there are any questions, please let us know.

Sincerely,

 TERRY CHAMBERS
 Deputy Administrator

GAO note: Appendixes III and IV refer to comparative cost schedules included in our draft report but excluded from this final report. GAO believes that the current yield of Treasury notes is a more realistic measure of present value than the 10-percent rate suggested by OMB.

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APPENDIX III

APPENDIX III

OFFICE OF TELECOMMUNICATIONS POLICY
EXECUTIVE OFFICE OF THE PRESIDENT
WASHINGTON, D.C. 20504

July 20, 1976

DIRECTOR

Mr. F.J. Shafer
Director
Logistics & Communications Division
U.S. General Accounting Office
Washington, D.C. 20548

Dear Mr. Shafer:

This is in response to your draft report for Congress entitled "Improvement Needed In Government Facsimile Equipment Management." This report is very timely and correctly emphasizes the need to capitalize on the savings which might accrue to the government through increased facsimile sharing, requirements consolidation, and consideration of a different procurement management strategy.

OTP has several ongoing programs which are designed to encourage the governmental agencies to procure more competitively and avoid overlapping, duplicative, and inefficient programs. In this regard, we have noticed a proliferation of data communication facilities, especially communication terminal equipment such as facsimile and associated value-added-network/transmission equipment; and are encouraging agencies to reexamine their approach to agency requirements and procurements.

Recently, OTP has encouraged GSA to identify telecommunication facility services and associated costs. It is our understanding that GSA recently issued FPMR 101-35. This management regulation provides a procedure for developing an inventory for data, facsimile, and record telecommunication services and facilities of Federal Government agencies. It should provide the basis by which the participating agencies can explore not only facsimile sharing economies, but other telecommunication efficiencies.

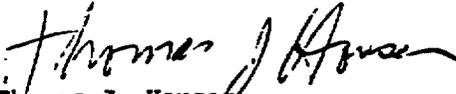
Finally, OTP has been, and will continue to pursue through Circulars such as OTP-13, the articulation of broad policies, which in general, focus on alleviating the facsimile problem which GAO has identified.

APPENDIX III

APPENDIX III

The recommendations of this report are compatible with the objectives of this Office, and we welcome the publication of this report.

All best wishes,


Thomas J. House

PRINCIPAL OFFICIALS
RESPONSIBLE FOR ADMINISTERING
ACTIVITIES DISCUSSED IN THIS REPORT

	Tenure of office	
	From	To
<u>DEPARTMENT OF DEFENSE</u>		
SECRETARY OF DEFENSE:		
Donald L. Rumsfeld	Dec. 1975	Present
James R. Schlesinger	June 1973	Nov. 1975
William P. Clements, Jr. (acting)	May 1973	June 1973
OFFICE OF DIRECTOR, TELECOMMUNICATIONS AND COMMAND AND CONTROL SYSTEMS (note a):		
Richard N. Shriver	Jan. 1976	Present
Thomas C. Reed	Feb. 1974	Jan. 1976
David L. Solomon (acting)	Sept. 1973	Jan. 1974
CHAIRMAN, JOINT CHIEFS OF STAFF:		
Gen. George S. Brown, USAF	July 1974	Present
Adm. Thomas H. Moorer, USN	July 1970	July 1974
SECRETARY OF THE ARMY:		
Martin R. Hoffman	Nov. 1975	Present
Howard H. Callaway	June 1973	Oct. 1975
SECRETARY OF THE NAVY:		
J. William Middendorf	Apr. 1974	Present
John W. Warner	May 1972	Apr. 1974
CHIEF NAVAL OPERATIONS:		
Adm. J. L. Holloway, III	July 1974	Present
Adm. Elmo R. Zumwalt, Jr.	July 1970	July 1974
SECRETARY OF THE AIR FORCE:		
Thomas C. Reed	Jan. 1976	Present
John L. McLucas	July 1973	Dec. 1975
CHIEF OF STAFF, AIR FORCE:		
Gen. David C. Jones	July 1974	Present
Gen. George S. Brown	Aug. 1973	June 1974

<u>Tenure of office</u>	
<u>From</u>	<u>To</u>

OFFICE OF TELECOMMUNICATIONS POLICY

DIRECTOR:

Thomas J. Houser	July 1976	Present
John M. Eger (acting)	Sept. 1974	July 1976
Clay T. Whitehead	Sept. 1970	Sept. 1974

DEPARTMENT OF COMMERCE

SECRETARY OF COMMERCE:

Elliot L. Richardson	Feb. 1976	Present
Rogers C. B. Morton	May 1975	Feb. 1976
John. K. Tabor (acting)	Mar. 1975	Apr. 1975
Frederick B. Dent	Feb. 1973	Mar. 1975

DEPARTMENT OF TRANSPORTATION

SECRETARY OF TRANSPORTATION:

William T. Coleman, Jr.	Mar. 1975	Present
Claude S. Brinegar	Feb. 1973	Feb. 1975

DEPARTMENT OF THE TREASURY

SECRETARY OF THE TREASURY:

William E. Simon	Apr. 1974	Present
George P. Shultz	June 1972	Apr. 1974

Commissioner of Internal Revenue:

Donald C. Alexander	May 1973	Present
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GENERAL SERVICES ADMINISTRATION

Administrator of General Services:

Jack Eckerd	Nov. 1975	Present
Dwight A. Ink (acting)	Oct. 1975	Nov. 1975
Arthur F. Sampson	June 1973	Oct. 1975

Commissioner, Federal Supply Service:

Jay H. Bolton (acting)	Nov. 1975	Present
Michael J. Timbers	June 1973	Oct. 1975

APPENDIX IV

APPENDIX IV

<u>Tenure of office</u>		
	<u>From</u>	<u>To</u>

DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE

SECRETARY OF HEALTH, EDUCATION, AND WELFARE:

David Mathews	Aug. 1975	Present
Caspar W. Weinberger	Feb. 1973	Aug. 1975

DEPARTMENT OF LABOR

SECRETARY OF LABOR:

W. J. Usery, Jr.	Feb. 1976	Present
John T. Dunlop	Mar. 1975	Jan. 1976
Peter J. Brennan	Feb. 1973	Mar. 1975

DEPARTMENT OF AGRICULTURE

SECRETARY OF AGRICULTURE:

John A. Knebel (acting)	Oct. 1976	Present
Earl L. Butz	Apr. 1971	Oct. 1976

DEPARTMENT OF INTERIOR

SECRETARY OF INTERIOR:

Thomas S. Kleppe	Oct. 1975	Present
Kent Frizzell (acting)	July 1975	Oct. 1975
Stanley K. Hathaway	June 1975	July 1975

DEPARTMENT OF JUSTICE

ATTORNEY GENERAL:

Edward H. Levi	Feb. 1975	Present
William B. Saxbe	Jan. 1974	Feb. 1975

DIRECTOR, FEDERAL BUREAU OF INVESTIGATION:

Clarence M. Kelley	July 1973	Present
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DIRECTOR, UNITED STATES SECRET SERVICE:

H. Stuart Knight	Mar. 1974	Present
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<u>Tenure of office</u>		
	<u>From</u>	<u>To</u>

SMALL BUSINESS ADMINISTRATION

ADMINISTRATOR:

Mitchell P. Kobelinski	Feb. 1976	Present
Louis F. Laun	Oct. 1975	Feb. 1976

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

ADMINISTRATOR:

James C. Fletcher	Apr. 1971	Present
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FEDERAL POWER COMMISSION

EXECUTIVE DIRECTOR:

J. Curtis Fee	Jan. 1976	Present
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SECURITIES AND EXCHANGE COMMISSION

CHAIRMAN:

Roderick M. Hills	Oct. 1975	Present
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a/This position was created in 1970 as Assistant to the Secretary of Defense for Telecommunications. In January 1972 it was changed to Assistant Secretary of Defense (Telecommunications), and in January 1974 it was changed to its present title.